

KNOX COUNTY HAZARD MITIGATION PLAN – 2019 UPDATE

Table of Contents

1. Overview

Purpose.....	1-1
Geography	1-1
Climate	1-1
Transportation	1-1
Governance.....	1-1
Employment	1-2
Demographics	1-2

2. Plan Adoption

Multi-Jurisdictional Adoption	2-1
Resolutions	2-2

3. Planning Process

Planning Process	3-1
Documentation of Planning Process.....	3-1
Documentation of Local Participation	3-2
Status of Local Participation	3-3
Narrative Description.....	3-3
Opportunity for Neighboring Communities, Regional Agencies.....	3-6
How the Public was given an Opportunity to be Heard	3-6
Review and Incorporation of Existing Plans and Studies	3-6
How Communities will continue Public Participation	3-6
Method and Schedule for Keeping Plan Current.....	3-6

4. Risk Assessment

Risk Assessment.....	4-1
Physical Geography	4-1
Climate	4-1
Temperature	4-2
Precipitation.....	4-2
Prevailing Winds.....	4-2
Climate Change.....	4-3
Temperature Changes	4-3
Surface Seawater Temperature Changes.....	4-3
Precipitation Changes.....	4-4
Sea Level Rise	4-5
Description of Natural Hazards affecting the Jurisdiction	4-7
Profiled Natural Hazard Ratings	4-11
Profiling Hazards	4-12
Severe Summer Storm Events	4-12
Introduction.....	4-12
General Definition of Severe Summer Storm Events	4-12
Types of Severe Summer Storm Events	4-12
Location of Hazard.....	4-13
Extent of the Hazard	4-13

Previous Occurrences	4-16
Probability of Occurrence.....	4-16
 Severe Winter Storm Events	4-16
Introduction.....	4-16
General Definition of Severe Winter Storm Events.....	4-16
Types of Winter Storms in Knox County	4-17
Location of Hazard.....	4-17
Extent of the Hazard	4-17
Previous Occurrences	4-18
Probability of Occurrence.....	4-19
 Flooding	4-20
Introduction.....	4-20
General Definition of Flooding	4-20
Types of Flooding in Knox County	4-20
Location of Flooding Hazard	4-21
Extent of the Hazard from Dam Failure.....	4-22
Extent of the Hazard from other than Dam Failure	4-22
Previous Occurrences	4-23
Probability of Occurrence.....	4-23
 Wildfire	4-24
Introduction.....	4-24
General Definition of Wildfire	4-24
Types of Wildfire in Knox County	4-24
Location of Hazard.....	4-25
Extent of the Hazard	4-25
Previous Occurrences	4-25
Probability of Occurrence.....	4-26
 Landslide.....	4-26
Introduction.....	4-26
General Definition of Landslide	4-26
Types of Landslides in Knox County	4-26
Location of Landslide	4-26
Extent of the Hazard	4-26
Previous Occurrences	4-27
Probability of Occurrence.....	4-27
 Assessing Vulnerability: Overview	4-27
Vulnerability of Knox County to Each Hazard	4-28
Impacts of Each Hazard on Knox County	4-28
 Repetitive Loss Properties.....	4-29
Vulnerability of Future Buildings, Infrastructure, Critical Facilities	4-30
 Estimate of Potential Losses	4-32
Severe Summer Storm Events	4-33
Severe Winter Storm Events	4-33
Flooding	4-33
Wildfire	4-34
Landslide.....	4-34

General Description of Land Uses and Development Trends	4-34
Multi-Jurisdictional Risk Assessment.....	4-38

5. Mitigation Strategies

Mitigation Strategy	5-1
C1. Existing Authorities, Policies, Programs and Resources	5-1
C2. Participation in the National Flood Insurance Program.....	5-4
C3. Goals	5-5
C4. Comprehensive Range of Specific Actions and Projects	5-5
C5. Action Plan.....	5-5
County – Wide Goals and Mitigation Actions	5-5
Severe Summer Storm Events.....	5-6
Severe Winter Storm Events.....	5-8
Flooding.....	5-9
Wildfire	5-11
Landslide	5-12
Rating of Actions and Establishment of Priorities.....	5-13
Prioritized Mitigation Projects in Knox County	5-15
Mitigation Projects Listed in Priority Order	5-15
Criteria for Prioritization -Towns	5-15
Criteria for Prioritization –County-Wide	5-15
How the Actions will be Implemented.....	5-15
Timeframe	5-15
Potential Funding Sources.....	5-16
D2. Progress in Local Mitigation Efforts	5-16
D3. Revisions to Reflect Changes in Priorities.....	5-16
Use of a Cost-Benefit Analysis.....	5-16
Status of Completed, Deleted or Deferred Projects.....	5-16
Hazard Mitigation Projects by Municipality	5-17

6. Plan Maintenance Procedures

Monitoring, Evaluating and Updating the Plan	6-1
Monitoring the Plan.....	6-1
Evaluating the Plan.....	6-1
Updating the Plan	6-2
Incorporating Mitigation into other Planning Mechanisms	6-2
Continued Public Participation.....	6-4

APPENDICES

A. Maps.....	
B. Municipal Surveys.....	
C. Defensible Space	
D. King Tide Comparison	
E. Participation.....	
F. Outreach.....	